

20-8621



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

645.7910

Job Sheet 213823

Accounting Job SE CAD 139 Valve



Part No: 645.7910

Job Qty: 1 pcs

Part Name: Cable Housing



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/7/20

Job Tracking No:

Due Date: 10/19/20

Created By: Marie Lajeunesse

Type: R+D

Description:

Note: 645.7900 REV.C IPP REV:A 20.10.07 NEW ISSUE DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Hardinge - 1	1 pcs	10/19/20	10/19/20	0.50	0.07	Hardinge - 1		JB 20.10.13
110	QC 2	1 pcs	10/19/20	10/19/20	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		JB 20.10.13
							QC 2 - 63		
							QC 2 - 8		
							QC 2 - 66		
							QC 2 - 64		
							QC 2 - 65		



Container No: S305967



Part: 645.7910

Job No: 213823

Serial No/Batch: S305967

Revision: REV.C

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 10/13/20

Plex 10/7/20 12:53 PM Dart.lajeunesse.marie

P.T.O.

P.T.O.

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120 QC 8	1 pcs	10/19/20	0.00 0.00	QC 2 - 5	
				QC 2 - 71	
				QC 2 - 73	
				QC 2 - 69	
				QC 2 - 76	
				QC 2 - 86	
				QC 2 - 83	
				QC 8 - 12	
				QC 8 - 14	OK 20/10/15
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 57	
				QC 8 - 76	
				QC 8 - 61	
				QC 8 - 66	
				QC 8 - 73	
				QC 8 - 82	
130 Packaging 3-1 - Stock - B4B	1 pcs	10/19/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	

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				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
				Packaging 3 - 37 - B4B	
140	QC 21 - SA	1 pcs	10/19/20	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70
					Broussard
					QC 21 - SA - 9
					QC 21 - SA - 77
					QC 21 - SA - 28
Part Op 100 - 1-Machine as per folio F <u>5402</u> FOLIO REV: <u>AA</u> DWG REV: <u>C</u> 2-Debur Descriptions: 110 - (QC2- Inspect parts off machine FAI/FAIB) 120 - (QC8- Inspect parts - second check) 130 - LOCATION : ST008 140 - (QC21- Final Inspection - Work Order Release)					
Job BOM					
Part / Item	Component Name	Quantity	Operation	Container	
M303R0.500	303 Round Bar 0.500"	.2600 ft (.26 ea)	100-Hardinge - 1	<u>5273242</u>	
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
100-Hardinge - 1	M303R0.500	0	14	0	
Part Specifications					
Specifications could not be found.					

Plex 10/7/20 12:53 PM Dart.lajeunesse.marie

Ketan Tailor

From: Jacob Becker
Sent: October-07-20 4:57 PM
To: Ketan Tailor
Cc: Steven Drouin
Subject: RE: Deviations for Valve Pull Force Test Tool

Understood.

Per our conversation these deviations are acceptable.

Regards,

JACOB BECKER
Lead Sustaining Engineer

DART AEROSPACE
T 1 760 509-1639
M 1 760 691-9108

From: Ketan Tailor <ktailor@dartaero.com>
Sent: Wednesday, October 07, 2020 1:48 PM
To: Jacob Becker <jbecker@dartaero.com>
Cc: Steven Drouin <sdrouin@dartaero.com>
Subject: RE: Deviations for Valve Pull Force Test Tool

Hey Jacob,

We measure the CBL-1240 Cable we have in stock and we will not deviate the 645.7810 Cable Rod.

The diameter of the uncoated Cable was 0.063".

Thanks,
Ketan

From: Ketan Tailor
Sent: October-07-20 4:35 PM
To: Jacob Becker <jbecker@dartaero.com>
Subject: Deviations for Valve Pull Force Test Tool

Hey Jacob,

We would like to make changes to the following P/Ns in order to decrease the lead time for the 607.3301 Valve Pull Force Test Tool

607.3301 Valve Pull Force Test Tool

- Replace 601.1581 Cable with CBL-1240
- Replace 601.1054 Crimp Sleeve with CBL-460
- Replace 601.2330 Cotter Pin with MS24665-103

650.7910 Shroud

- Omit outsourcing for Passivation

645.7910 Cable Housing

- Omit outsourcing for Passivation

~~645.7810 Cable Rod~~

- ~~Dimension was 0.072 ± 0.005 is $0.063 + 0.004 / - 0.001$~~

645.7110 Lock Nut Swivel Type

- Omit outsourcing for Electropolish and Passivation.

Please confirm if these changes are acceptable.

Thanks,
Ketan

Work Order:	213823
Part Number:	645.7910
	Page 1 of 1

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1	.03 X 45°	± .010 X .5°	.031 x 45°	✓		Vernier	JB-01
2	3.00	± .010	3.0015	✓		Vernier	JB-01
3	1.63	± .010	1.632	✓		Vernier	JB-01
4	Ø .375	± .005	.3742	✓		Mic	JB-09
5	Ø .256	± .001	.256	✓		GP .255 / .257 (Ref)	
6	3/8 - 24 UNF - 1A	GO / NO-GO	3/8-24 UNF 1A	✓		GO/NOGO	3/8-24 UNF 1A / 5A
	MAJOR Ø	.3739 / .3631	.3686	✓		Mic	JB-09
	M.O.W. (.024)	.3827 / .3770	.3797	✓		Mic	JB-09
7	MAT'L SS 303 AMS-5640		SS 303 AMS-5640	✓		MILL TEST ATTACHED	
8	PASSIVATION				✓	OMITTED BY EMAIL / DEVIATION ATTACHED	

Measured by: JB	9-89	Checked by: mf	QC Inspector:	9-89
Date: 20.10.13		Date: 20/10/15	Date:	OCT 15 2020

Engineering Approval: (If necessary)		Date:
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Rev	Date	Change	Revised by	Approved
A	13-Oct-20	New Issue	MG	

LINE 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 17030 0.500

PO / BATCH NO.: POH8046330

DATE: APR 29 2008

5274010/5273242

MATERIAL CERT REC'D: YES

THICKNESS ORDERED: 0.500

QUANTITY RECEIVED: 73 FT

THICKNESS RECEIVED: 0.500

QUANTITY INSPECTED: 73 FT

SHEET SIZE ORDERED:

QUANTITY REJECTED:

SHEET SIZE RECEIVED:

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	☒ Y	☐ N	
CORRECT FINISH	☒ Y	☐ N	
CORROSION	☒ Y	☐ N	
CORRECT GRAIN DIRECTION	☒ Y	☐ N	
CORRECT MATERIAL PER M-DRAWING	☒ Y	☐ N	<u>ASTM A572</u>
CORRECT THICKNESS	☒ Y	☐ N	
PHOTO REQUIRED	☒ Y	☐ N	
CORRECT REF # TO LINK CERT	☒ Y	☐ N	<u>HIT 478545 / C66Y</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y	☐ N	
CORRECT M# ON THE MATERIAL	☒ Y	☐ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	☒ Y	☐ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	☒ Y	☐ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: _____	DA 8 9-8	SIGNED OFF BY: _____	
DATE: <u>APR 29 2008</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

DELIVERY - CLIENT

Copy

CO00200239

Billed to DART AEROSPACE LTD 1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	Shipped to 1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7 Att : GUÉRIN Delivery Route 5	Customer N° Date Delivery date Your order N° Processed by Salesman Carrier Credit Terme	CLI0001056 2020/04/22 2020/04/24 POHB046330 Josianne Bourdon JOSIANNE BOURDON OUELLETTE VALLEYFIELD Net 30 Days
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Product Description	Weight	Qty	UM	PCS HB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND SS 303 1/2 (R) RSS-12303 5727 6 X 12' R/L POHB046330 LINE 1 HEAT: 478545	48.02	72.00	PL_4CLB		4x48" 2x45"						
Note : ATTENTION: MILL TEST REQUIS Chaque item identifier avec : - Le # PO client - Le # d'item - Le heat # - Emballer les pièces dans carton						DAS 32 9-85					

Conditions :**Total Weight (Lbs) :** 48.02**NIR :** R-109516-6

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By : 	Verified By : 	Delivered By :	Time	Customer's Signature			Date		
					Y	M	D		

RECEIVED

APR 24 2020

DART AEROSPACE LTD.

33675

Larrondo LOIU (VIZCAYA) España
P.O. Box 1323/48050 Ribao
Tel. 34-(4) 4 71 13 00
Fax. 34-(4) 4 53 16 36

Management Systems
Certified by
LRQA
ISO 9001 / Ref 6000360
ISO 14001 / Ref 1870678

ACEROS INOXIDABLES

56514

OLARRA



Works Inspector Stamp - Werkssachverständiger
Sello del Inspector

3

Certificate type - APZ Nach Certificado tipo		EN 10204/3.1		Certificate n° - Prüf-Nr Certificado n°		388676		Date - Datum - Fecha 27 - 05 - 2019	
Our order / Werkz. - Nr N° de Referencia		881120		Heat Schmelz Colada		478545		Your order N° Bestell - Nr Pedido N°	
						C120301			
Steel Grade Werkstoff Calidad				AISI-303				According to Entsprechend Corresponde	
				ASTM A 582 / A582M-12.					
Shape and Size - Gegenstand Perfil y dimensión ROUND 1/2"		Tolerances - Toleranz Tolerancias k 12 / ISO 286-1 / EN 10060		Bundles Bünde Bultos		2		Weight Gewicht Peso	
								2480 Lbs	
Requirements - Anforderungen - Exigencias.									
QQ-S 784B-70-AMD2 COND.A. SAE AMS 5840U-07, TYPE I. EN 10.088-3-2014. 1.4305. MECAMAX - PLUS									
Molting process / Erweichungsart / Processo de Fusão. E.A.F. / A.O.D.									
Heat treatment / Wärmebehandlung / Tratamiento térmico 1050C 4H/Std WATER/WASSER/AGUA									
Solution annealed / Abgeschreckt / Hipertermo - Gold drawn / Gezoogen / Estrado.									
Test results - Ergebnis der Prüfungen - Resultados de los ensayos									
Dimension of Specimen Abmessungen des Probekörpers Medida de los probetes		Rp0.2% KSI		Rp 1% KSI		Rm KSI		A % L 5D	
RD. 12,50 mm.		Min.						Z %	
Max.								Hardness Härte HBW	
Temperature °C 20		Spmo. N° Probe Nr. Pro N°		1		86		103	
								111	
								32	
								55	
								262	
								246	
C		Si		Mn		P		S	
Min.								0,150	
Max.		0,150		1,00		2,00		0,200	
		0,042		0,46		1,64		0,033	
								0,328	
								17,64	
								0,37	
								8,31	
								0,47	
								0,0345	
								0,15	
Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional		O.K.		Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad		O.K.		Antirusting test Spektrale Verwechslungspr Antirrezaca	
								Grain Size Korngröße Tamaño de grano	
Remarks - Bemerkungen - Observaciones Free From Mercury contamination/Quecksilberfreiheit. No weld repair.									
EDV / EDP Acc. EN 10.204 Marian Tejedo Quality Mng. Works Inspector Der Werksachverständige Inspector de fábrica									
We hereby certify that material described herein complies with the requirements agreed on the order.									

231883

Heat: 478545

Firmado digitalmente por / Signed digitally by:
ACEROS INOXIDABLES OLARRA SA - CIF A40003540
Fecha / Date: 27-05-2019 09:18

Entered: 2R Date: OCT 27 2020



NCR No. 20-8621 **WORK ORDER NON-CONFORMANCE / ROUTE UPDATE**

Route update only ☐

Job: <u>213823</u>		DISPOSITION		DEPARTMENT/PROCESS					
Part No. <u>645.7910</u>		Rework ☒ Scrap ☐ Use-as-is ☐		Skid-tube ☐ Machining ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐	Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐	Engineering ☒ Water Jet ☐ Supplier ☐ Quality ☐		
Date: <u>20.10.07</u>	Sequence #: <u>100</u>		QTY Affected: <u>1</u>		MRS (QSI042)				
Description Work Order Deviation				Disposition					
Omit Outsourcing for Passivation				this change was made to reduce lead time				Completed By <u>DAS 62</u> <u>20.10.13-89</u>	
								Lead hand / Supervisor <u>2R</u> <u>20/10/15</u>	
								QC / QA Coordinator <u>D 20.10.15</u>	
Root Cause		FAULT CATEGORY							
Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☒		☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled	☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function	☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up	☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☒ Finish ☐ Part Lost/Missing ☐ Misread				
Other/Details:									